



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/640,988	08/14/2003	Andrew W. Lueck	TI-35560	9195
23494	7590	04/18/2006	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED			HUYNH, KIM T	
P O BOX 655474, M/S 3999			ART UNIT	
DALLAS, TX 75265			PAPER NUMBER	
			2112	

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/640,988	LUECK ET AL.	
	Examiner	Art Unit	
	Kim T. Huynh	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☒ Claim(s) 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/14/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kelly et al. (US Patent 6,760,793)

As per claim 19, Kelly discloses a method for isochronous transfer of data between a PCI compatible device (fig.3, 316, 318, 320 ie I/O interconnect) and a serial switched topology (fig.3, 313 ie bridge) used to connect peripheral devices to a computer comprising:

- receiving data from a PCI compatible device (fig.3, 316, 318, 320 ie I/O interconnect) connected to a PCI bus (fig.3, 311 ie pci bus), the data being addressed to a register defined in a serial switched topology used to connect peripheral devices to a computer to PCI bridge; (col.7, line 17- col.8, line 67, ie switch sets the input and output buffer set for each port for each virtual channel, the device assure that it never assigns the device more work tasks than its capacity to handle)

Art Unit: 2112

- transferring the data addressed to the register upstream to the serial switched topology, the data transfer maintaining isochronism of the data.
(col.9, lines 1-48)

As per claim 20, Kelly discloses serial switched topology used to connect peripheral devices to a computer to PCI bridge comprising:

- first means for receiving data from a PCI compatible device (fig.3, 316, 318, 320 ie I/O interconnect) connected to a PCI bus (fig.3, 311 ie pci bus) and sending the data upstream to a CPU via the serial switched topology, the first means maintaining isochronism of isochronous data from the PCI compatible device, and (col.7, line 17-col.8, line 67, ie switch sets the input and output buffer set for each port for each virtual channel, the device assure that it never assigns the device more work tasks than its capacity to handle)
- second means for receiving isochronous data from the CPU via the serial switched topology and for sending the data downstream to the PCI compatible device, the second means maintaining isochronism of the data.(col.9, lines 1-48)

Allowable Subject Matter

3. Claims 1-18 are allowable

Applicant's claimed invention is deemed allowable over the prior art of record as the prior art fails to teach or suggest a port arbitration circuit for controlling grant and

stop lines of the PCI compatible devices to force time-based arbitration on the PCI devices connected to a PCI bus to guarantee bandwidth to upstream data sent from a predetermined one of the PCI compatible devices and for allocating the data to a predetermined one of a plurality of virtual channels supported by a serial switched topology used to connect peripheral device to a computer in combination with other limitations as recited in independent claims and further in view of the specification and applicant's arguments.

Response to Amendment

4. Applicant's amendment filed on 2/1/06 have been fully considered but does not place the application in condition for allowance.

a. In response to applicant's argument that Kelly discloses an express switch which only one input buffer set and only one output buffer set are required. Thus, it can not be coupled to a PCI bus. Examiner respectfully disagrees. As Kelly notes at figures 3, the bridge(switched) 311 is connected to I/O interconnect 316, 318 and 320 via PCI bus 311. Thus, the prior art teaches the invention as claimed and the amended claims do not distinguish over the prior art as applied.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

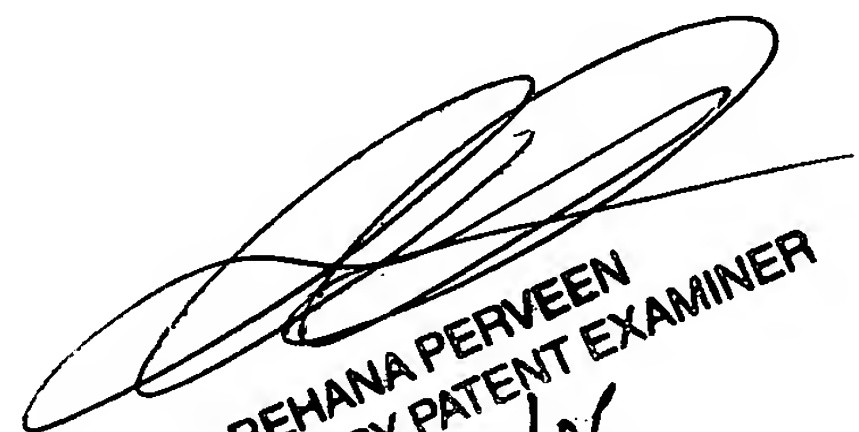
Conclusion

6. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9:00AM- 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached at (571)272-3676 or via e-mail addressed to [rehana.perveen@uspto.gov].*

The fax phone numbers for the organization where this application or proceeding is assigned are (571)273-8300 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

Kim Huynh

April 12, 2006


REHANA PERVEEN
SUPERVISORY PATENT EXAMINER
4/14/06